

grains are referred to as seeds. On page 59 we read that "the large majority of the plants whose pollen give rise to hay fever are worthless weeds," yet the list of well-known offenders in this respect includes such economically important plants as cherry, clover, corn, timothy, rose, and others, and numerous trees of great importance for timber.

Chapter V, *The "intelligence" of plants*, is mainly a commentary on Maeterlinck's essay, *L'intelligence des fleurs*, which the author apparently accepts, *litteratim*. He quotes Maeterlinck's citation of the seeds of the mistletoe, juniper and mountain-ash, "which provide for their dissemination by birds and which, to entice them . . . lurk inside a sweet husk." Maeterlinck interprets this as evidence on the part of the plant, of "a powerful reasoning faculty . . . a remarkable understanding of final causes." Reinheimer (p. 87) challenges anyone "to produce a better and more rational interpretation of these phenomena"; and adds that, "the assumption is by no means fanciful that the plant is also a direct sustainer of animal intelligence. The animal takes in 'knowledge' with its food . . . 'knowledge' which is 'predigested' by the plant." In this connection, it would be malicious to note that, toward the end of the same paragraph, the author quotes Prof. John Dewey as saying that, "it is not we who think in any actively responsible sense; thinking is rather something that happens in us."

C. STUART GAGER.

#### Clements's Rocky Mountain Flowers\*

A lady, intensely struck with the wealth of form and coloring of the Texas wild flowers, once wrote me inquiring for a book describing and illustrating this flora in such a way that she could with her all but forgotten elementary botany "spot" their names and learn more about them. I wrote her, regretting the lack of

\* Clements, Frederic Edward and Edith Schwartz Clements. *Rocky Mountain Flowers. An illustrated Guide for Plant-Lovers and Plant-Users.* Field ed. Pp. xxxi + 392. Illustrated. The H. W. Wilson Co., New York. 1920. Price \$4.50.

such a book for that section. No doubt many tourists, ranchmen and others in the Rocky Mountain region and adjacent plains have wished also for just such a book. In "Rocky Mountain Flowers," Professor Clements and his wife have, I believe, produced such a volume. There are details that might be criticized, but in a section where the wild flowers are so striking and varied in color and form, and so plentiful that they are often a dominant note in the coloring of the landscape, such a book is much to be desired, and criticisms as to slight defects in the accuracy of the color plates and in the use of such unfamiliar Latin names as Brassicaceae for Cruciferae are out of order. The reviewer, who has collected plants both as an amateur and a professional in this region, finds this volume a distinct innovation for that part of the country. The book has easily worked keys, with family and genus descriptions, and covers the wild flowers of the West from the Canadian Rockies to California and New Mexico, and as far east as the western halves of the plains states of Kansas, the Dakotas and Nebraska. Both keys and descriptions are simple enough for the beginners in high schools and colleges, for general botanists with slight taxonomic training, for tourists, and for the general lover of nature who desires to know plants and talk about them, but who has not had the opportunity, time or inclination to wade through a great mass of technical detail in order to gain the very general knowledge he desires. In this volume the general, rather than specific, aspects are emphasized, making it especially valuable for the forester and ecologist who of necessity must do much of their identification work in the field, and who must, therefore, have descriptions not difficult to apply. There are 25 full-page color plates illustrating 175 floral types in such a way that the most untrained layman would recognize them. Added to these are 355 black and white illustrations of floral "types." There is a key flower chart which should be of great help in plant identification, especially to those other than professional systematists. The book is convenient in size, very attractively bound in dark red limp leather, and contains a glossary of scientific terms.

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